

# The Role of Oral Language Revisited: A Comment on the NICHD Early Child Care Research Network (2005)

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This article comments on the discussion of S. A. Storch and G. J. Whitehurst's (2002) literacy development model in the article by the National Institute of Child Health and Human Development (NICHD) Early Child Care Research Network (ECCRN; 2005). Specifically, this comment focuses on concerns raised by the NICHD ECCRN that Storch and Whitehurst's model does not afford an important role to oral language in the development of early reading skill. Four important issues are presented that provide a serious and careful challenge to the model and conclusions of the NICHD ECCRN's report.

**Keywords:** code-related and oral language precursors, early literacy, reading development, preschool children, young schoolchildren

Storch and Whitehurst (2002) published an article in *Developmental Psychology* that evaluated a comprehensive model of literacy development from preschool through elementary school. The article presented a longitudinal structural equation model that demonstrated five key findings: (a) a strong relationship between code-related precursors and oral language skills during preschool, (b) a high degree of continuity over time within both the code-related and oral language domains, (c) the strong role played by kindergarten print knowledge and phonological awareness in determining early reading ability, (d) the distinction between reading accuracy and reading comprehension in later elementary school, and (e) the important, though indirect, role played by early oral language ability in early reading achievement.

The present article is a response to the National Institute of Child Health and Human Development (NICHD) Early Child Care Research Network's (ECCRN; 2005) criticism of our findings, particularly the failure to support a direct link between preschool oral language ability and early elementary reading skill. In contrast to the findings of Storch and Whitehurst (2002), the NICHD ECCRN proposed the existence of a statistically significant direct path between a broad measure of oral language ability at age 54 months (as measured by the Preschool Language Scale-3 [PLS-3]; Zimmerman, Steiner, & Pond, 1979) and Grade 1 reading skills (as measured by the Woodcock-Johnson Incomplete Words and Letter-Word Identification tasks; Woodcock & Johnson, 1989). On the basis of this finding, the NICHD ECCRN argued that prior research, including our article, has failed to fully examine the role of oral language in early reading. The NICHD ECCRN considered three reasons that their results differed from ours: difference in measures, difference in operationalization of oral language, and difference in samples. The authors focused their attention on the way in which oral language was defined. In particular, the NICHD

ECCRN pointed out that prior research has adopted too narrow a view of oral language, focusing mainly on vocabulary, whereas in their study, oral language was operationally defined as "words, grammar, morphology, and discourse" (p. 439). In the following discussion, four important issues are presented that provide a serious and careful challenge to the model and conclusions of the NICHD ECCRN's report.

First, the NICHD ECCRN's (2005, p. 436) path analysis model lacks a concurrent path between preschool oral language ability and preschool code-related skills. This presents a difficulty in comparing their model and ours. The lack of a concurrent path between oral language and code-related skills at age 54 months is a critical difference between the two models. The NICHD ECCRN's model seems to favor a path between preschool oral language and Grade 1 reading spanning a 2-year time frame over a concurrent path between preschool oral language and code-related skills. In Storch and Whitehurst's (2002) model, this concurrent path provides the foundation for the indirect influence of preschool oral language on Grade 1 reading ability. It is important to point out what one sacrifices in selecting this direct, time-lagged path over the concurrent path. Indeed, Storch and Whitehurst demonstrated an indirect effect of preschool oral language ability on early reading ability of .55 (standardized beta weight), which is considerably higher than the direct path weight of .10 obtained in the NICHD ECCRN's model. Moreover, the NICHD ECCRN's model overlooks the high correlations that exist in their data between concurrent measures of preschool language and code-related skills.

Second, it is critically important to consider the issue of statistical significance versus substantive importance. The main point of contention between Storch and Whitehurst's (2002) article and the NICHD ECCRN's (2005) report revolves around the direct path from preschool broad language ability to first-grade reading skill. The NICHD ECCRN reported a standardized beta weight of .10 for each of the paths to the two Grade 1 reading measures, along with a significant *p* value level. However, this is not surprising considering their large sample. More important than a path's *p* level, however, is the amount of variance for which the path

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accounts. The standardized beta weight of .10 for the NICHD ECCRN's path indicates that broad language skills at 54 months accounted for only 1% of the variance in both Grade 1 letter-word knowledge and phonological awareness. On the other hand, Storch and Whitehurst's model indicates that oral language plays a much greater role through indirect means, with preschool oral language ability effectively contributing to 30% of the variance in Grade 1 reading skills through its effect on both preschool code-related literacy skills and kindergarten oral language ability.

Third, their model neglects to take into account the relationship among different measures belonging to the same early literacy construct of either oral language or code-related skills. Storch and Whitehurst (2002) demonstrated the relationship among different measures of the same early literacy constructs through the use of statistically and conceptually meaningful first- and second-order latent variables. It was the latent variables, then, and not individual tests, that were related through direct and indirect structural paths. The NICHD ECCRN's (2005) report failed to associate the measures falling into a single domain, and by doing so, they missed three key points. First, the authors disregarded their correlational data that supported a strong relationship between the two measures of oral language at 54 months. Second, they discounted the theoretical literature that led them to label both PLS-3 scores and Woodcock-Johnson Picture Vocabulary scores as measures of oral language. Third, by solely testing paths between specific assessment measures, rather than constructs, the NICHD ECCRN's model provides less support for a relationship between oral language and reading and provides more support for a relationship between individual test results, that is, between the PLS-3 and the Woodcock-Johnson subtests.

Fourth, in Storch and Whitehurst's (2002) article, explicit attention is indeed given to the important role of oral language. The NICHD ECCRN's (2005) discussion takes particular aim at whether the path is direct or indirect and discounts the fact that Storch and Whitehurst's findings unequivocally support the importance of early oral language ability. Storch and Whitehurst wrote that

although oral language abilities do not appear to make a direct contribution to reading during Grades 1 and 2, a child's skill with spoken language does play an essential, albeit an indirect role in reading achievement during the early stages of reading acquisition. This is a significant finding in light of the many research studies that have not found support for a connection between oral language ability and early reading achievement, beyond the influence of phonemic awareness skills. The results of our model suggest that there may be a danger in emphasizing phonological processing skills to the extent that the role of other language skills is underestimated. (p. 943)

Overall, the NICHD ECCRN's (2005) article appears to have criticized Storch and Whitehurst's (2002) article as a means of making the argument that prior research has unduly overlooked the role of oral language in early reading development. However, Storch and Whitehurst's model not only affords an essential role to oral language in the development of key code-related early literacy skills, such as print awareness, letter knowledge, and phonological awareness, but even more important, this model also demonstrated the far-reaching effects of early oral language skills on reading achievement throughout elementary school.

## References

- National Institute of Child Health and Human Development Early Child Care Research Network. (2005). Pathways to reading: The role of oral language in the transition to reading. *Developmental Psychology, 41*, 428-442.
- Storch, S. A., & Whitehurst, G. J. (2002). Oral language and code-related precursors to reading: Evidence from a longitudinal structural model. *Developmental Psychology, 38*, 934-947.
- Woodcock, R. W., & Johnson, M. B. (1989). *Woodcock-Johnson Revised Tests of Achievement*. Itasca, IL: Riverside.
- Zimmerman, I. L., Steiner, V. G., & Pond, R. E. (1979). *Preschool Language Scale-Revised edition*. San Antonio, TX: The Psychological Corporation.

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